

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (currently amended): A method of representing a multimedia content management object as an item in a relational database adapted for representing multimedia content management data in one or more relational database tables, each of said relational database tables having at least one row with a plurality of columns, said method comprising:

associating a root component of the content management object with a row in a first relational database table;

associating attributes of the root component with corresponding columns of the first relational database table;

associating additional components of the content management object, if any, with rows in additional relational database tables; and

using the item defined by the relational database tables to construct a plurality of high level content management data models, each corresponding to a different application.

2. (previously presented): The method of claim 1, wherein each of the additional components comprises a child component of a root component or a child component of another component.

3. (previously presented): The method of claim 2, further comprising using a foreign key in a child component to reference its parent component.

4. (previously presented): The method of claim 1, wherein an attribute comprises a pointer to a data resource stored in a separate repository.

5. (previously presented): The method of claim 1, wherein an attribute comprises a pointer to another content management object.

6. (previously presented): The method of claim 1, wherein a row in a table comprises a link between a source item and a target item.

7. (currently amended): A method of representing a multimedia content management object in a database comprising a high level content model and a low level physical model of multimedia content data, said low level physical model providing a mapping to a data engine, said method comprising:

a. entering multimedia content data metadata and schema in the low level physical model, and

b. mapping the metadata and schema to the data engine,

wherein the low level physical model supports a plurality of high level content models.

8. (canceled).
9. (previously presented): The method of claim 7, wherein the high level content model comprises an application program interface embodying a representation of one or more data structures and constraints.
10. (previously presented): The method of claim 7, wherein the high level content model supports a plurality of content application requirements.
11. (previously presented): The method of claim 7, wherein the low level physical model is extensible.
12. (previously presented): The method of claim 7, further comprising adding additional high level content models.
13. (previously presented): The method of claim 7, wherein the data engine is chosen from the group consisting of relational database management systems, object oriented database management systems, object-relational database management systems and XML data repositories.

14. (currently amended): A method of managing a multimedia content management system comprising a multimedia content management object including multimedia object components and multimedia object attributes, said multimedia content management object represented as an item in a relational database adapted for representing multimedia content management data in one or more relational database tables, each of said relational database tables having at least one row with a plurality of columns, said method comprising:

associating a root component of the content management object with a row in a first relational database table;

associating attributes of the root component with corresponding columns of the first relational database table;

associating additional components of the content management object, if any, with rows in additional relational database tables; and

using the item defined by the relational database tables to construct a plurality of high level content management data models, each corresponding to a different application.

15. (previously presented): The method of claim 14, wherein each of the additional components comprises a child component of a root component or a child component of another component.

16. (previously presented): The method of claim 15, further comprising using a foreign key in a child component to reference its parent component.

17. (previously presented): The method of claim 14, wherein an attribute comprises a pointer to a data resource stored in a separate repository.

18. (previously presented): The method of claim 14, wherein an attribute comprises a pointer to another content management object.

19. (previously presented): The method of claim 14, wherein a row in another table comprises a link between a source item and a target item.

20. (currently amended): A system for managing and delivering one or more multimedia data object items of a multimedia content management object from a multimedia data object content repository through a multimedia data object content server to a client, each of the multimedia data object items comprising multimedia data object attributes and components, and wherein the multimedia data object content server is controlled and configured to:

a. associate a root component of the content management object with a row in a first relational database table;

b. associate attributes of the root component with corresponding columns of the first relational database table; and

c. associate additional components of the content management object, if any, with corresponding rows in additional relational database tables;

wherein the data object items are used to construct a plurality of high level data models,  
each corresponding to a different application.

21. (previously presented): The system of claim 20 wherein, each of the additional components comprises a child component of the root component, or a child component of another child component.

22. (previously presented): The system of claim 21, wherein a foreign key is used in a child component to reference its parent component.

23. (previously presented): The system of claim 20, wherein an attribute comprises a pointer to a data resource stored in a separate repository.

24. (previously presented): The system of claim 20, wherein an attribute comprises a pointer to another content management object.

25. (previously presented): The system of claim 20, wherein a row in another table comprises a link between a source item and a target item.

26. (currently amended): A program product comprising computer readable code on one or more media, said program code being capable of controlling and configuring a computer

system having one or more computers to manage a multimedia content management system having a high level content model and a low level physical model of multimedia content data, said low level physical model providing a mapping to a data engine, by representing a multimedia content management object in a database by the method comprising:

- a. entering multimedia content data metadata and schema in the low level physical model, and
- b. mapping the metadata and schema to the data engine,  
wherein the low level physical model supports a plurality of high level content models.

27. (canceled).

28. (previously presented): The program product of claim 26, wherein the high level content model comprises an application program interface embodying a representation of one or more data structures and constraints.

29. (previously presented): The program product of claim 26, wherein the high level content model supports a plurality of content application requirements.

30. (previously presented): The program product of claim 26, wherein the low level physical model is extensible.

31. (previously presented): The program product of claim 26, wherein the low level physical model supports additional high level content models.

32. (previously presented): The program product of claim 26, wherein the data engine is chosen from the group consisting of relational database management systems, object oriented database management systems, object-relational database management systems, and XML data repositories.

33. (currently amended): A program product comprising computer readable code on one or more media, said program code being capable of controlling and configuring a computer system having one or more computers to manage a multimedia content management system comprising a multimedia content management object having multimedia object components and multimedia object attributes, said multimedia content management object represented as an item in a relational database adapted for representing multimedia content management data in one or more relational database tables, each of said relational database tables having at least one row with a plurality of columns, by a method comprising:

associating a root component of the content management object with a row in a first relational database table;

associating attributes of the root component with corresponding columns of the first relational database table;



associating additional components of the content management object, if any, with rows in additional relational database tables; and

using the item defined by the relational database tables to construct a plurality of high level data models, each corresponding to a different application.

34. (previously presented): The program product of claim 33, wherein each of the additional components comprises a child component of the root component or a child component of another child component.

35. (previously presented): The program product of claim 34, further comprising program code to direct the computer system to use a foreign key in a child component to reference its parent component.

36. (previously presented): The program product of claim 33, wherein an attribute comprises a pointer to a data resource stored in a separate repository.

37. (previously presented): The program product of claim 33, further comprising program code for populating a multimedia content management system with content schema and metadata, said program code adapted to configure and control the computer to

- a. present a query to a user as to a content item;

b. based upon the end user's response, present a subsequent query as to the content item;

c. based upon the end user's further responses, determine the sub-components and attributes of the item.

38. (previously presented): A method of populating a multimedia content management system with content schema and metadata, said multimedia content management system comprising a multimedia content management object having multimedia object components and multimedia object attributes, and a relational database adapted for representing component and attribute data in one or more relational database tables, each of said relational database tables having at least one row with a plurality of columns, said method comprising:

presenting a query to a user as to a content item;  
based upon the end user's response, presenting a subsequent query as to the content item;  
based upon the end user's further responses, determining the components and attributes of the content item;

associating each component of the content item with a row in a separate relational database table; and

associating attributes of the content item with corresponding columns of the relational database tables.

39. (previously presented): The method of claim 38, further comprising using a foreign key in a child component to reference its parent component.

40. (previously presented): The method of claim 38, wherein a sub-component comprises a child component of a root component or a child component of another child component.

41. (previously presented): The method of claim 38, wherein an attribute comprises a pointer to a data repository where the component is stored.

42. (previously presented): The method of claim 38, wherein an attribute comprises a pointer to a data resource stored in a separate repository.

43. (previously presented): The method of claim 38, wherein a row in another table comprises a link between a source item and a target item.